The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

MAILED

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PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK R. ALLEN

Appeal No. 2003-0773
Application No. 09/339,616

HEARD: August 20, 2003

Before HAIRSTON, GROSS, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

## REMAND TO EXAMINER

This is a remand of the appeal under 35 U.S.C. § 134 from the final rejection of claims 1, 4-9, 13-16, and 19-28, in accordance with 37 CFR § 1.196(a), (e). After considering the record before us, we are convinced that the instant appeal is not ready for meaningful review. Accordingly, we hereby remand the application to the examiner to consider the following issues, and to take appropriate action.

## BACKGROUND

The invention is directed to a light string, comprised of light emitting diodes (LED's), for connection to an alternating current (AC) power supply. Claim 1 is reproduced below.

1. A light string comprising:

a predetermined number of light emitting diodes "LEDs" electrically coupled in series to form at least one series block, each LED having an average alternating current drive voltage, the series block having a first LED and a last LED, the first LED directly coupled intermediate a source end and a terminal end of a first of a pair of wires and the last LED directly coupled intermediate the source end and the terminal end of a second of the pair of wires, the light string being free from additional circuitry intermediate the first LED and the source end of the first pair of wires, between each of the LEDs, and intermediate the last LED and the source end of the second pair of wires, and

a first connector coupled to both the source end of the first of the pair of wires and the source end of the second of the pair of wires which connector facilitates a direct connection between the first LED and a first side of an alternating current electrical power supply, and the last LED and a second side of the alternating current electrical power supply, the supply having a supply voltage, the predetermined number of LEDs substantially calculated by dividing the supply voltage by the average alternating current drive voltage.

The examiner relies on the following references:

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|---|---|---|
| Frohardt et al. (Frohardt) | 3,758,771 | Sep. 11, 1973 |
| Chang | 5,887,967 | Mar. 30, 1999 |
| Reymond | 5,936,599 | Aug. 10, 1999 (effective filing date Jan. 27, 1995) |
| Yamuro | 5,941,626 | Aug. 24, 1999 (filed Apr. 30, 1997) |

Claims 1, 9, 14-16, and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yamuro.

Claims 4, 6-8, and 21-24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yamuro and Reymond.

Claim 5 stands rejected under 35 U.S.C. § 103 as being unpatentable over Yamuro and Reymond.

Claims 13 and 28 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yamuro and Frohardt.

Claims 19, 20, 26, and 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yamuro and Chang.

Claims 2, 3, 10-12, 17, and 18 have been canceled.

We refer to the Final Rejection (Paper No. 17) and the Examiner's Answer (Paper No. 27) for a statement of the examiner's position and to the Brief (Paper No. 26) and the Reply Brief (Paper No. 28) for appellant's position with respect to the claims which stand rejected.

## DISCUSSION

As part of the response to the standing Section 103 rejections, appellant asserts providing evidence of commercial success, "failure of others," copying, and long felt need. (E.g., Brief at 3 and 14.) The examiner brushes aside the proffered evidence in

a single paragraph in the Answer, with only a mention of "commercial success" and "potential interest of others."

If a prima facie case is made in the first instance, and if the applicant comes forward with reasonable rebuttal, whether buttressed by experiment, prior art references, or argument, the entire merits of the matter are to be reweighed. In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986) (citing In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984)).

Without the examiner setting forth specific findings, on the record, as to the relevance of, and weight to be afforded, each piece of proffered evidence, this merits panel is not in a position to evaluate the propriety of the Section 103 rejections. The Board serves as a board of review, and does not perform examination in the first instance. See 35 U.S.C. § 1.6(b). The record requires support for the conclusion -- support by specific findings that address appellant's proffered evidence -- that the evidence of obviousness is believed to outweigh the evidence of nonobviousness. Patentability is determined on the totality of the record, by a preponderance of evidence standard. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

While the case contains rejections clearly based on alleged obviousness under 35 U.S.C. § 103, requiring evaluation of the proffered evidence of secondary considerations, we understand the examiner's rejection of claims 1, 9, 14-16, and 25 to be additionally based on alternative grounds of anticipation. A finding of anticipation means that the claims are also obvious under 35 U.S.C. § 103. Anticipation is "the

epitome" of obviousness. See, e.g., Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re Pearson, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974). However, evidence of secondary considerations such as "long-felt but unresolved need" is irrelevant when the invention lacks novelty. See, e.g., In re Malagari, 499 F.2d 1297, 1302, 182 USPQ 549, 553 (CCPA 1974) (citing In re Wiggins, 488 F.2d 538, 179 USPQ 421 (CCPA 1973)). Evidence submitted to show nonobviousness is not relevant or material when an invention is anticipated in terms of Section 102.

The examiner appears to submit, as set out at pages 4 and 5 of the Answer, that the claim 1 negative limitation of "the light string being free from additional circuitry intermediate the first LED and the source end of the first pair of wires" does not preclude, for example, the single resistor (8) shown in Figure 1B of Yamuro. From there, the rejection moves to an asserted teaching in Yamuro with respect to an "obvious variation in design choice."

However, another basis for a finding of anticipation, relevant to at least instant claim 1, has not been developed, and appellant has thus not had opportunity to consider any possible rebuttal. Yamuro describes configuration of the circuit shown in Figure 1B:

> A 2-volt LED lamp 4 is used in the present embodiment. 50 2-volt LED lamps 4 are connected in series for each light emitting unit 6. Therefore, the power source required for each light emitting unit 6 is 100V.

> Since the required power source of 100V is equal to the common source voltage in Japan, the resistance 8 apparently seems unnecessary. However, it is proved from experience that the apparatus is stable in function by providing the resistance 8. Therefore, the resistance 8 is connected to the circuit shown in FIGS. 1A and 1B. 50 or less LED lamps 4, for example, 45 or 40 LED lamps, can be connected to the light emitting unit 6. In this case, the resistance value corresponding to the potential difference from the power source 9 is set as the resistance 8.

Yamuro col. 3, ll. 31-44.

There is much discussion and controversy in the case regarding the extent to which the above-noted section of the reference may discourage an artisan from building a circuit similar to that shown in Figure 1B, but without a resistor. However, the question whether a reference "teaches away" from the invention is inapplicable to an anticipation analysis. A reference is no less anticipatory if, after disclosing the invention, the reference then disparages it. Celeritas Techs. v. Rockwell Int'l Corp., 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522 (Fed. Cir. 1998).

An inference fairly drawn from Yamuro is that the inventor placed 50 2-volt LED's, in series, with a 100 volt AC power source, but without using a resistor as shown in the figures. Yamuro ultimately determined that the circuit was not sufficiently stable for the inventor's purposes, although the reference does not describe the prior circuit arrangement as inoperative.[1] The fact that the predecessor circuit might be considered

[1] Appellant has presented evidence, in the form of experiments, in this record purported to show "instability" of a circuit within the teachings of the embodiment of Figure 1B of Yamuro, but absent a resistor. Yamuro, however, already teaches that such a circuit is lacking in stability. The inquiry with respect to whether the reference anticipates relates to enablement; i.e., whether or not undue experimentation would be required by the artisan to make and use the circuit described by Yamuro. Appellant's experiments may show, at best, that a circuit consistent with the teachings of Yamuro may be

experimental is irrelevant for purposes of anticipation. See In re Baxter Travenol Labs., 952 F.2d 388, 391, 21 USPQ2d 1281, 1284 (Fed. Cir. 1991).

With respect to consideration of any language in claim 1 that might distinguish over Yamuro, we note that appellant contends that the final clause of the claim is not taught by the reference. However, the "predetermined number of LEDs substantially calculated by dividing the supply voltage by the average alternating current drive voltage" is in the form of a process step (i.e., a prior calculation step), yet within a claim that purports to set forth "[a] light string." Process steps per se cannot serve to limit product or apparatus claims. See In re Stephens, 345 F.2d 1020, 1023, 145 USPQ 656, 658 (CCPA 1965) ("We think it well settled that the presence of process limitations in product claims, which product does not otherwise patentably distinguish over the prior art, cannot impart patentability to that product."). The relevant inquiry is how the process recitations might define structure. See, e.g., In re Garnero, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1969) (recitation of "interbonded one to another by interfusion between the surfaces of the perlite particles" construed as structural limitation in product claim); In re Dike, 394 F.2d 584, 589, 157 USPQ 581, 585 (CCPA 1968) (no error in USPTO board holding that term "blow-molded" in claims drawn to integral plastic container and handle failed to distinguish over prior art, because term

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inoperative if one were to select one particular type of manufactured LED.

related to process of making the article, and was not definitive as to the structure of the article).

The relevant question is thus how the "substantially calculated" implicit step of instant claim 1 may result in a difference with respect to the structures disclosed by Yamuro. Yamuro discloses placing 50 2-volt LED's, in series, with a 100 volt AC power source (i.e., without the resistor 8 depicted in the later version of the circuit (Figure 1B)). We compare this to appellant's disclosure (page 5), which teaches placing 50 LEDs having an "average LED drive voltage assumed to be approximately 2.2 V" in series with a 110 volt AC source, or 100 of the LED's in series with a 220 volt AC source. The relationships between the number of LED's with respect to LED voltage and AC source appear to be exactly the same in the applied prior art. Yamuro fairly teaches that the number of LED's are determined by dividing the source voltage by the common LED voltage. Yamuro thus appears to not only teach the same number of LED's as contemplated by claim 1, but also appears to teach the identical process step.

We also note that appellant contends, in a declaration submitted pursuant to 37 CFR § 1.132 (copy attached to the Brief), there are substantive differences between the LED's disclosed by Yamuro as compared to those disclosed by appellant. That contention brings us to another problem in the instant case.

Appellant alleges, in paragraph 18 of the declaration, that "[i]t is well known in the industry that LED voltage specifications are calculated under DC operating conditions," and asserts that Yamuro discloses 2-volt "DC" LED's, even though the

reference does not say so. Hence the question: in light of what was "well known in the industry," why would not the artisan regard the LED voltage values in the instant disclosure as being "calculated under DC operating conditions?"

At the oral hearing, we questioned appellant's representative with respect to where the disclosure might teach that appellant's LED's are somehow different from the LED's disclosed by Yamuro (i.e., other than the difference in magnitude of the nominal values of "2.2" as opposed to "2"). Appellant's representative pointed to the second line of page 4 of the specification (as amended), which refers to "drive voltage(s) of the LEDs to be employed (e.g., 2VAC)." However, appellant's original disclosure reads, "drive voltage(s) of the LEDs to be employed (e.g., 2VDC)" (emphasis added). The description was changed by an amendment filed February 28, 2001 (Paper No. 16), which made similar changes at page 5 of the specification.

There is thus a substantial question as to whether the above-noted amendments represent new matter. Cf. 35 U.S.C. § 132(a) ("No amendment shall introduce new matter into the disclosure of the invention.").

A rejection would lie under 35 U.S.C. § 112, first paragraph, for lack of written description of the invention now claimed, should the scope of the claims be affected by new matter in the written description. Instant claim 1 recites, "each LED having an average alternating current drive voltage," which would appear to be merely inherent in any LED connected to an AC voltage source -- including those shown in Figure 1B of

Yamuro, in series with resistor 8 -- since an LED is a passive device, and not a voltage source.

In any event, it is thus not clear that instant claim 1 is subject to a rejection under 35 U.S.C. § 112, first paragraph. However, the examiner should evaluate the instant application for new matter, and determine whether all limitations of all the instant claims are supported by the original disclosure.

## CONCLUSION

The instant application is remanded to the examiner for consideration of the aforementioned issues and to take action accordingly.

This application, by virtue of its "special" status, requires an immediate action. MPEP § 708.01 (8th ed., rev. 1, Feb. 2003). It is important that the Board be informed promptly of any action affecting the status of the appeal.

## REMANDED

KENNETH W. HAIRSTON
Administrative Patent Judge

ANITA PELLMAN GROSS
Administrative Patent Judge

HOWARD B. BLANKENSHIP
Administrative Patent Judge

) BOARD OF PATENT APPEALS AND INTERFERENCES

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